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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,048

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Hirofumi Okada

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8452

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7590

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EXAMINER

HUNNINGS, TRAVIS R

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,048

Applicant(s)

OKADA, HIROFUMI

Examiner

Travis R. Hunnings

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-11 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 5 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walter (US Patent 6,275,141) in view of Ruediger (US Patent 6,731,196) and further in view of Watanuki et al. (Watanuki; US Patent 6,460,386).

Regarding claim 1, Walter discloses the following claimed limitations:

The claimed security system comprising a mechanical key for mechanically opening and closing the lock of the locked subject is met by the mechanical key as seen in figure 2 for operating a vehicle door lock;

The claimed portable device having a wireless communication function and including a key retainer for retaining the mechanical key is met by the remote control for controlling the vehicle security system including door locks that has a receptor for retaining the mechanical key of the vehicle as seen in figure 2 (col10 1-32);

The claimed notifying means for notifying a person possessing the portable device that the mechanical key is not retained in the key retainer is met by the LEDs

that show what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (col10 49-67).

However, Walter does not specifically disclose an activation controlling means for performing wireless communication between the locked subject and the portable device wherein the locked subject outputs a request signal during the wireless communication, the portable device outputs an ID code signal in response to the request signal, and the activation controlling means controls the activation of the lock in accordance with the ID code signal. Ruediger discloses *Safety Device* that teaches a wireless vehicle lock controlling device that outputs a challenge code to the wireless remote device that receives the challenge code and responds with a response code that identifies (ID code) the transponder as being valid for the vehicle and when the vehicle verifies this response code the vehicle unlocks the door locks (abstract, col2 12-67 and col3 1-27). Adding electronic circuitry that allows the vehicle security system of Walter to use an additional means of unlocking the vehicle doors through a challenge-response method taught by Ruediger would make the device more user-friendly and allow the user to unlock the vehicle without having to press an unlock door button which would be beneficial if the user had his or her hands full and wouldn't be able to reach their keys. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Walter according to the teachings of Ruediger to include electronic circuitry that performs wireless communication between

the locked subject and the portable device wherein the locked subject outputs a request signal during the wireless communication, the portable device outputs an ID code signal in response to the request signal, and the activation controlling means controls the activation of the lock in accordance with the ID code signal.

Walter and Ruediger still do not specifically disclose the claimed limitation of the portable device having a key retainer that retains the mechanical key wherein the mechanical key is hidden in the portable device. Watanuki discloses *Electronic Key Structure* that teaches a wireless vehicle access control device with a mechanical key that is retained inside the device and is hidden from view while retained as shown in figures 1-6. Watanuki discloses a beneficial way to retain the mechanical key and it would have been beneficial to change the device of Walter and Ruediger to hide the key in the remote control because it would take up less space for the user and be easier to carry around. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Walter and Ruediger according to the teachings of Watanuki to hide the mechanical key in the remote control device itself. The device would still function properly using the electrodes that detect whether the key is retained in the receptor (Walter: column 11, lines 29-44) by conducting through the metal mechanical key instead of the key retainer itself.

Regarding claim 2, Walter, Ruediger and Watanuki disclose all of the claimed limitations. The claimed key detector arranged in the portable device to detect whether the mechanical key is retained in the key retainer is met by the spring electrodes that

sense whether the key is retained in the receptor (Walter: col11 29-44). The claimed portable device warning device arranged in the portable device to provide a warning is met by the LEDs lighting up to indicate what mode the vehicle is currently in (Walter: col10 49-67). The claimed portable device controller arranged in the portable device to control the portable device warning device to provide warning when the key detector detects that the mechanical key is not retained in the key retainer is met by the remote control controlling the functioning of the LEDs that light up to indicate what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (Walter: col10 49-67).

Regarding claim 3, Walter, Ruediger and Watanuki disclose all of the claimed limitations. The claimed key detector arranged in the portable device to detect whether the mechanical key is retained in the key retainer is met by the spring electrodes that sense whether the key is retained in the receptor (Walter: col11 29-44). The claimed portable device controller arranged in the portable device for outputting a warning signal when the key detector detects that the mechanical key is not retained in the key retainer is met by the LEDs that light up to indicate what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (Walter: col10 49-67). The claimed locked subject warning device arranged in the locked subject to provide a warning is met by the

mode indicators in the vehicle cabin that are illuminated when the vehicle is placed into valet mode by removing the key from the remote control receptor therefore displaying to the user that the key is not being retained in the receptor (Walter: col10 1-46). The claimed locked subject controller arranged in the locked subject for controlling the locked subject warning device to provide the warning when receiving the warning signal is met by the security system receiving the signal from the remote control when the key is removed from the remote control receptor and setting the vehicle into valet mode which in turn provides indication on the mode indicators inside the vehicle that the vehicle is currently in valet mode and the key is removed from the remote control receptor (Walter: col10 1-67).

Regarding claim 4, Walter, Ruediger and Watanuki disclose all of the claimed limitations. The claimed portable device warning device arranged in the portable device to provide a warning is met by the LEDs that light up to indicate what mode the vehicle is currently in (Walter: col10 49-67). The claimed locked subject warning device arranged in the locked subject to provide a warning is met by the mode indicators in the vehicle cabin that are illuminated when the vehicle is placed into valet mode by removing the key from the remote control receptor therefore displaying to the user that the key is not being retained in the receptor (col10 1-46). The claimed key detector for detecting whether the mechanical key is retained in the key retainer is met by the spring electrodes that sense whether the key is retained in the receptor (Walter: col11 29-44). The claimed portable device controller for controlling the portable device warning device

to provide the warning and send a warning signal to the locked subject when the key detector detects that the mechanical key is not retained in the key retainer is met by the remote control controlling the functioning of the LEDs that light up to indicate what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (Walter: col10 49-67) and sending a signal to the vehicle to indicate that the key has been removed and to put the vehicle into a valet mode and therefore indicate on the mode indicators that the vehicle is in valet mode and the key is removed from the remote control receptor (Walter: col3 40-52 and col10 1-67). The claimed locked subject controller for controlling the locked subject warning device to provide the warning when receiving the warning signal is met by the security system receiving the signal from the remote control when the key is removed from the remote control receptor and setting the vehicle into valet mode which in turn provides indication on the mode indicators inside the vehicle that the vehicle is currently in valet mode and the key is removed from the remote control receptor (Walter: col10 1-67).

Regarding claim 6, Walter, Ruediger and Watanuki disclose all of the claimed limitations. The claimed security system wherein the locked subject is a vehicle including an electric device and an engine, and the security system disables at least one of activation of the electric device and starting of the engine when the mechanical key is not retained in the key retainer is met by the vehicle security system restricting

access to certain components of the vehicle such as trunk locks and glove compartment locks when the vehicle is placed into valet mode by removing the key from the remote control receptor (Walter: abstract and col10 1-67).

3. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walter in view of Luebke et al. (Luebke; US Patent 6,034,617) and further in view of Watanuki.

Regarding claim 12, Walter discloses the following claimed limitations:

The claimed key retainer for retaining a mechanical key that mechanically opens and closes the lock is met by the remote control receptor that holds a mechanical key as seen in figure 2;

The claimed key detector for detecting whether the mechanical key is retained in the key retainer is met by the spring electrodes that sense whether the key is retained in the receptor (col11 29-44);

The claimed notifying means for notifying a person possessing the portable device that the mechanical key is not retained in the key retainer is met by the LEDs that show what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (col10 49-67).

However, Walter does not specifically disclose the claimed portable device being operable for outputting an ID code signal for controlling the opening and closing of the lock. Luebke discloses *Operator Intent Based Passive Keyless Vehicle Control System* that teaches a conventional RKE portable device that transmits a unique identification code to the receiver in the vehicle to operate the vehicle door locks (col3 64-67 and col4 1-10). Using a unique identification code as the particular way to identify the signal sent by the remote control when wirelessly communicating with the vehicle would give the system more security by only allowing the vehicle door locks to be operated when the identification code is recognized to be one that is authorized by the receiver and prevent spurious radio signals from activating the door lock (Luebke: col1 22-25). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Walter according to the teachings of Luebke to use a unique identification code signal for controlling opening and closing of the lock.

Walter and Luebke still do not specifically disclose the claimed limitation of the portable device having a key retainer that retains the mechanical key wherein the mechanical key is hidden in the portable device. Watanuki discloses *Electronic Key Structure* that teaches a wireless vehicle access control device with a mechanical key that is retained inside the device and is hidden from view while retained as shown in figures 1-6. Watanuki discloses a beneficial way to retain the mechanical key and it would have been beneficial to change the device of Walter and Luebke to hide the key in the remote control because it would take up less space for the user and be easier to carry around. Therefore it would have been obvious to one of ordinary skill in the art at

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the time of the invention to modify the device disclosed by Walter and Luebke according to the teachings of Watanuki to hide the mechanical key in the remote control device itself. The device would still function properly using the electrodes that detect whether the key is retained in the receptor (Walter: column 11, lines 29-44) by conducting through the metal mechanical key instead of the key retainer itself.

Regarding claim 13, Walter, Luebke and Watanuki disclose all of the claimed limitations. The claimed portable device wherein the locked subject is a vehicle including an electric device and an engine, and the security system disables at least one of activation of the electric device and starting of the engine when the mechanical key is not retained in the key retainer is met by the vehicle security system restricting access to certain components of the vehicle such as trunk locks and glove compartment locks when the vehicle is placed into valet mode by removing the key from the remote control receptor (Walter: abstract and col10 1-67).

4. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walter in view of Watanuki.

Regarding claim 15, Walter discloses *Single-Key Security System* that has the following claimed limitations:

The claimed security system comprising a lock is met by the door lock of the vehicle (col10 1-32);

The claimed mechanical key for mechanically opening and closing the lock is met by the mechanical key as seen in figure 2;

The claimed portable device including a wireless key that performs wireless communication and includes a key retainer for retaining the mechanical key is met by the remote control performing the operations of opening and closing the vehicle door wirelessly that contains a receptor for holding the mechanical key as seen in figure 2 (col10 1-32);

The claimed lock controller for opening and closing the lock when wireless communication with the wireless key is established is met by the security system opening the vehicle door when the user activates a door open button on the remote control to wirelessly open the vehicle door (col10 1-46);

The claimed sensor arranged in the wireless key to detect whether the mechanical key is retained in the retainer is met by the spring electrodes that sense whether the key is retained in the receptor (col11 29-44);

The claimed notifying device for notifying a person carrying the portable device that the mechanical key is being retained in the key retainer is met by the LEDs that show what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (col10 49-67).

Walter does not specifically disclose the claimed limitation of the portable device having a key retainer that retains the mechanical key wherein the mechanical key is hidden in the portable device. Watanuki discloses *Electronic Key Structure* that teaches a wireless vehicle access control device with a mechanical key that is retained inside the device and is hidden from view while retained as shown in figures 1-6. Watanuki discloses a beneficial way to retain the mechanical key and it would have been beneficial to change the device of Walter to hide the key in the remote control because it would take up less space for the user and be easier to carry around. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Walter according to the teachings of Watanuki to hide the mechanical key in the remote control device itself. The device would still function properly using the electrodes that detect whether the key is retained in the receptor (Walter: column 11, lines 29-44) by conducting through the metal mechanical key instead of the key retainer itself.

Regarding claim 16, Walter and Watanuki disclose all of the claimed limitations. The claimed security system wherein the notifying device is one of or a combination of a light that is illuminated, a buzzer that emits a warning sound, and a vibration device that vibrates the portable device when the mechanical key is not retained in the key retainer of the portable device is met by the LEDs lighting up to indicate what mode the vehicle is currently in (normal, valet, etc...) and the car being automatically put into valet mode

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when the key is removed from the remote control receptor, therefore displaying to the user that the key is not being retained in the receptor (col10 49-67).

Regarding claim 17, Walter and Watanuki disclose all of the claimed limitations.

The claimed security system wherein the lock is a door lock of a vehicle, the lock controller is installed in the vehicle and the notifying device includes a light that is arranged in the vehicle and activated when the mechanical key is not retained in the key retainer is met by the door lock of the vehicle being controlled by the security system of the vehicle and the vehicle having mode indicators in the vehicle cabin that are illuminated when the vehicle is placed into valet mode by removing the key from the remote control receptor therefore displaying to the user that the key is not being retained in the receptor (col10 1-46).

Allowable Subject Matter

5. Claims 7-11 and 19 are allowed.
6. Claims 5 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-13 and 14-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jacob, *Electronic Key, Especially For Motor Vehicles*, US Patent 6,553,802.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH


Thomas J. Mullen, Jr.
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Art Unit 2632
10-31-05